



2021 Mid-Year SHAKEN Implementation Report

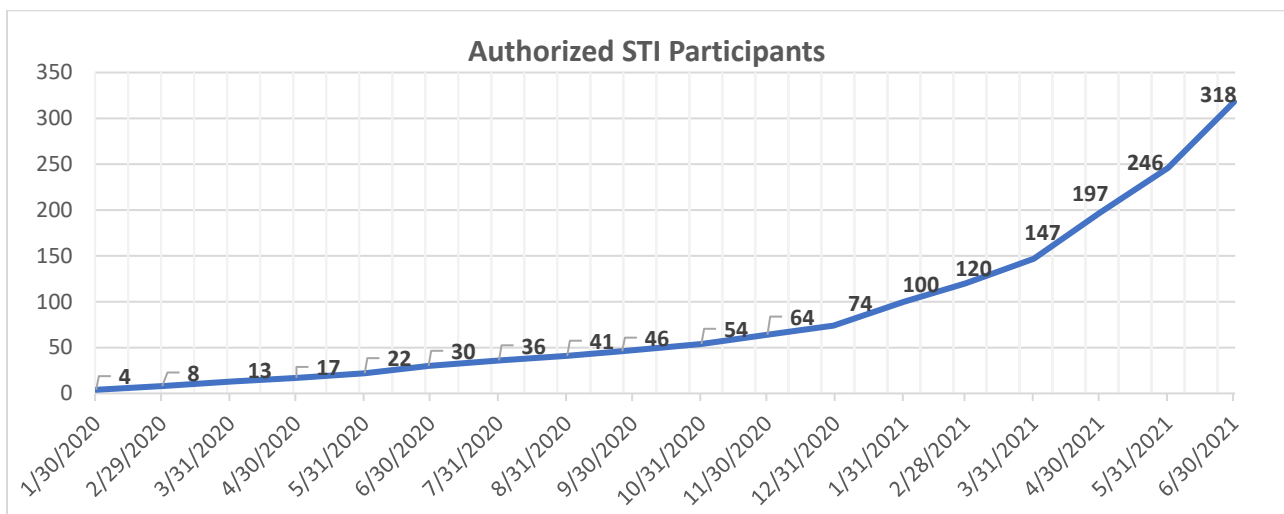
Introduction

In 2018, the telecommunications industry, under the auspices of ATIS, established the Secure Handling of Asserted information using toKENs (SHAKEN) framework and began organizing the Secure Telephone Identity-Governance Authority (STI-GA) as the authority to govern and set policy for use of the framework. Soon thereafter, the STI-GA issued a request for proposal (RFP) for the role of the STI-Policy Administrator (STI-PA) required to enforce the STI-GA policy and authorize entities to participate in the SHAKEN ecosystem. In 2019, the STI-GA completed the RFP process and selected iconectiv as the STI-PA, authorized the first four STI-Certification Authorities (STI-CAs), and met the Federal Communications Commission's (FCC's) December deadline to launch the SHAKEN framework. In 2020, the STI-GA worked to ensure the SHAKEN framework was both fully implemented and stable, and created the policies needed to allow the ecosystem to grow and remain secure.

Now at the mid-year point of 2021, the STI-GA continues to ensure SHAKEN is successful in accomplishing its primary goal: restoration of trust by the consumer that telephone calls are received from the caller displayed by their caller ID.

Growth of the SHAKEN Ecosystem

As of June 30th, the STI-PA authorized a total of 318 service providers (SPs), a marked increase in the number of providers seeking to register with the STI-PA since the first of the year (See table below). The full [list of authorized SPs](#) is posted on the STI-PA website.



STI-PA authorization allows SPs to access the trusted digital certificates which are the STI certificates, required to sign calls in the SHAKEN ecosystem. The STI certificate signature is passed from the SP that originates the call onto the network of the terminating service provider (TSP) that delivers the call to the end user. The STI certificate is part of the information used by the TSP to determine the legitimacy of the call they are receiving. Call analytics, which are not managed within the SHAKEN ecosystem, may comprise the remainder of the information used by SPs.

To date, the STI-GA has approved nine STI-CAs. The STI-CAs assign the STI certificates that SPs use to sign calls. Each STI-CA must submit to a thorough vetting process before being allowed to assign STI certificates to STI-PA-authorized SPs. From the start of its efforts to implement the SHAKEN framework, the STI-GA has sought to create a competitive market of digital certificate assignment to benefit the STI-PA-authorized SPs. With nine STI-CAs, seven of which are considered public and dedicated to serving the broader industry, the STI-GA is confident that it has succeeded in setting up a competitive STI-CA market. The [list of public STI-CAs](#) is posted on the STI-PA website.

Further STI-GA Policy Development

With a current target of October 15 this year, the STI-GA anticipates further enhancement to the SHAKEN framework to allow for the optional use of delegate certificates and the registration of toll-free Responsible Organizations (Resp Orgs). A delegate certificate allows an SP to establish an end user's right to use a telephone number (TN) where the SP did not directly assign the TN to the customer. In other words, those SPs that choose to accept delegate certificates are permitted to sign a call with A-level attestation because the customer's relationship to use the TN has been vetted by another STI-PA-authorized participant noted in the delegate certificate.

A Resp Org is the entity that assigns a toll-free number (TFN) to a customer and is the only entity that can authenticate a customer's right to use a TFN. Unless a Resp Org is also an SP, it is not involved in originating a call and previously was not able to provide the SHAKEN authentication for a customer's use of a TFN. The STI-GA policy revision affords companies sending traffic outbound from a TFN the ability to qualify for A-level attestation.

A more precise timeline for the availability of both the delegate certificate functionality and the authorization of Resp Orgs will be provided by the STI-GA at a future date.

Conclusion

Since the initial launch of the SHAKEN framework in late 2018, the ecosystem has grown rapidly and is poised for continued growth. As more SPs participate in the SHAKEN ecosystem, a greater number of calls will be signed. Increasing the number of verified calls will benefit consumers because SPs will be better able to assess the right of a caller to use the TN that is displayed in the caller ID.